



Attorney Docket No. 09800240-0063

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:	)	Group Art Unit: 1762
	)	
James ECONOMY	)	Examiner:
	)	
Application No. 10/717,303	)	
	)	
Filed: November 19, 2003	)	
	)	
For: High Density Boron Nitride Matrix	)	
Composites	)	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  
WITHIN THREE MONTHS OF FILING OR  
BEFORE MAILING OF FIRST OFFICE ACTION (37 C.F.R. section 1.97(b))**

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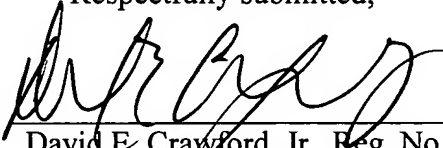
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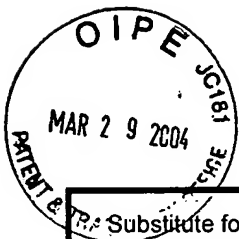
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Transmittal of Information Disclosure Statement  
Page 2

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Dated: 22 MAR 04

Respectfully submitted,  
  
By: \_\_\_\_\_  
David E. Crawford, Jr., Reg. No. 38,118  
Customer No. 26263  
314.259.5810



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/717,303
				Filing Date	November 19, 2003
				First Named Inventor	James Economy
				Group Art Unit	1762
Sheet	1	of	2	Examiner Name	
				Attorney Docket No.	09800240-0063

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	1	US-5,399,377	03-21-1995	Economy et al.	

Examiner Signature		Date Considered	
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Sheet	2	of	2	Attorney Docket Number	09800240-0063
<b>OTHER ITEMS – NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
	2	AWASTHI et al., "C/C Composite Materials for Aircraft Brakes," Advanced Ceramic Materials, 1988, pp. 449-451, Vol. 3.			
	3	COFER et al., "Oxidative and Hydrolytic Stability of Boron Nitride - A New Approach to Improving the Oxidation Resistance of Carbonaceous Structures," Carbon, 1995, pp. 389-395, Vol. 33.			
	4	COFER, "Processing and Characterization of Boron Nitride Composites and Films," Ph.D. Thesis, University of Illinois, 1995 (141 pages).			
	5	COFER et al., "Characterization of Fiber/Matrix Interfaces in Composites with a Boron Nitride Matrix," Composites Sci. & Techn., 1996, pp. 967-975, Vol. 56.			
	6	COFER et al., "Carbon/Boron Nitride Composites: An Alternative to Carbon/Carbon," Proceeding of the 19 <sup>th</sup> Annual Coca Beach Conference on Composites, 1995 (5 pages).			
	7	ECONOMY et al., "A One-Step Process for Fabrication of Carbon-Carbon Composites," Carbon, 1991, pp. 81-85, Vol. 30.			
	8	FABIO, "The Application of Advanced Materials to Four Unique Problems Involving Surface Interfaces, M.S. Thesis, The University of Illinois at Urbana-Champaign, 1997 (116 pages).			
	9	FIBERGLASS FABRICATION INDUSTRY, "Resin Transfer Molding (RTM)," obtained from <a href="http://www.pprc.org/pprc.sbap/fiber/rtm.cfm">http://www.pprc.org/pprc.sbap/fiber/rtm.cfm</a> , 2003, 2 pages.			
	10	KIM et al., "Fabrication of Oxidation Resistant Carbon Fiber/Boron Nitride Matrix Composites," Chem. Mat., 1993, pp. 1216-1220, Vol. 5.			
	11	KIM et al., "Occurrence of Liquid Crystallinity in a Borazine Polymer," Chem. Mater., 1994, pp. 395-400, Vol. 6.			
	12	KIM et al., "Fabrication and Properties of Ceramic Composites with a Boron Nitride Matrix," J. Am. Ceram. Soc., 1995, pp. 1546-1552, Vol. 78.			
	13	KRENKEL, "CMC Materials for High Performance Brakes," ISATA Conference n Supercars, Aachem, 1994, pp. 769-775.			
	14	ROWE, "Some Observations on the Frictional Behaviour of Boron Nitride and of Graphite," Wear, 1960, pp. 274-285, Vol. 3.			
Examiner Signature				Date Considered	

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